

## ABSTRACT OF THE DISCLOSURE

An optical apparatus includes a container filled with a gas containing hydrogen, and an optical element of silica glass which is accommodated in the container. The optical element is subjected to a heat treatment in a hydrogen atmosphere before being accommodated in the container. Within the container, the hydrogen concentration of the gas containing hydrogen is set to be less than 4% by volume, and the hydrogen having a partial pressure of in the range of 0.01 to 500 kgf/cm<sup>2</sup> (0.98 to 49,000 kPa). By maintaining the optical element in an ambient containing hydrogen, defects in the silica glass are minimized even when high energy light such as ultraviolet light is emitted over a long period. Therefore, an increase in transmission loss and optical distortions in the silica glass are prevented.